

ABSTRACT OF THE DISCLOSURE

An image comparison device for comparing a target object (an object to be recognized or identified) with registered objects (objects which are preliminarily registered to be compared with the target object)

5 includes a registration section and a comparison section. The registration section measures the 3-D shape and surface reflectance of each registered object and registers and stores them as registered data. In the comparison section, a photographing section photographs a target object and thereby obtains an input image. A position/pose estimation

10 section estimates the position/pose of the target object in the input image and thereby obtains position/pose parameters. An illumination correction section generates a reference image of each registered object (a 2-D image of the registered object in the same position/pose as the target object in the input image and under the same illumination condition as in

15 the input image) by use of the position/pose parameters obtained by the position/pose estimation section and the registered data. An image comparison section calculates an evaluation value concerning the similarity between the reference image and the input image. A judgment section judges whether or not each of the registered objects is

20 the same as or similar to the target object based on the evaluation value.